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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,870	12/14/2001	Stephen Arthur Anderson	01-754	5982

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EXAMINER

BOYD, JENNIFER A

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/016,870

Applicant(s)

ANDERSON, STEPHEN ARTHUR

Examiner

Jennifer A. Boyd

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/23/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,9, 12, 14 -19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 23, 2006 has been entered. The Applicant's Amendments and Accompanying Remarks, filed January 23, 2006, have been entered and have been carefully considered. Claims 12 and 14 – 19 are amended, claim 13 is cancelled and claims 1 – 6, 9, 12 and 14 - 19 are pending. In view of Applicant's arguments in regards to claim 16, the Examiner withdraws the previously set forth rejection in the Office Action dated September 21, 2005. The invention as currently claimed is unpatentable for reasons herein below.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Maintained Claim Rejections - 35 USC § 112

3. Claims 1 - 19 remain rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with

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which it is most nearly connected, to make and/or use the invention. The details of the rejection can be found in paragraph 3 of the Office Action dated January 21, 2005. The rejection is maintained.

Maintained Claim Rejections - 35 USC § 102/103

4. Claims 1 - 2, 4, 9, 12, 15 and 17 - 19 remain rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Puech (GB 384,930). The details of the rejection can be found in the Office Action dated September 21, 2005. The rejection is maintained.

The Applicant has amended claims 12, 15 and 17 - 19, however, the amendments do not change the scope of the previously applied rejection.

Maintained Claim Rejections - 35 USC § 103

5. Claim 3 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Puech (GB 384,930) in view of McCullough, Jr. et al. (US 4,844,974). The details of the rejection can be found in the Office Action dated September 21, 2005. The rejection is maintained.

6. Claims 5 - 6 and 14 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Puech (GB 384,930) in view of Nevin (GB 2,266,051 A). The details of the rejection can be found in the Office Action dated September 21, 2005. The rejection is maintained.

New Claim Rejections - 35 USC § 103

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7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Puech (GB 384,930) in view of Wiggins et al. (US 4,013,190).

Puech teaches the claimed invention above but fails to teach that the percent density of the flame arresting matrix is between 10 – 30%.

Wiggins is directed to a flame arresting and explosion attenuating system (Title).

Wiggins teaches that the flame arrestor materials and devices may be made in a wide variety of forms, shapes, sizes and thicknesses depending on how and where they are to be installed (column 6, lines 10 – 15). Wiggins teaches that the flame arresting material can be made of porous and foamed metals such as steel, aluminum, nickel, copper and alloys of these materials (column 7, lines 45 – 55). Wiggins teaches that a material having a void volume of 30 – 90% (or percent density of 10 – 30%) is advantageous for arresting flames (column 12, lines 1 – 30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to create a flame arresting matrix with a percent density of 10 – 30% motivated by the desire to create a light-weight matrix having good flame arresting properties.

Response to Arguments

8. Applicant's arguments filed January 23, 2006 have been fully considered but they are not persuasive.

Applicant argues ~~Applicant argues~~ that the required void size in a flame retarding member in order to quench a flame is a concept well understood in the art. The Applicant has provided a document to show evidence that how to determine void size in order to quench a flame is well known in the art. The arguments and contents of the document are not persuasive.

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The provided document discusses a thermal equation for determining flame quenching distance but this does not provide a means to determine the maximum void size for quenching flames. Furthermore, the Applicant has not indicated the source of the definition of the terms “Maximum Safe Experimental Gap (MSEG)” and “Quenching Distance”. Also, if the Applicant wishes to rely on the document provided at the web site link discusses on page 5 of 8, the Applicant should provide the document.

Applicant argues that Puech discloses a cowling for an aircraft engine not an aircraft engine itself. Applicant provides a definition of cowling as “a removable metal covering that houses the engine and sometimes a part of the fuselage or nacelle of an airplane, also: a metal cover for an engine”. The Examiner submits that Applicant’s “flexible fire retarding member” can also be considered a “cowling” because it is a metal fabric detachably wrapped around the outer part of the engine. Please see Applicant’s claims 1 and 12, Applicant’s Specification page 6 paragraph [0023] and Applicant’s Figures. In effect, the Applicant has provided his own definition of what is considered to be a part of an engine and as a result, the component described as a “cowling” is within the definition of Applicant’s “flexible fire retarding member” and thus can be considered a part of the engine.

Applicant argues that Puech has failed to teach the use of the “triple covering” anywhere but in the vent openings of the aircraft cowling. It should be noted that Applicant’s claim only requires that the fire retarding member covers *a portion* of the hot casing. Therefore, the Examiner submits that the vent coverings, although a small portion, still constitutes covering a portion of the hot casing.

Applicant argues that Puech teaches arresting a fire which has already started while the

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present invention is aimed at quenching any spark or preventing a flame from even starting directly at its point of origin on the engine casing surface itself. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., preventing the flame from even starting) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). It should be noted that the independent claims only require that the flexible fire retarding member limits flame propagation through the member and does not claim that the flexible fire retarding member prevents the flame from even starting.

Applicant argues that the percent density between 10 – 30% would not be inherent to the product of Puech. Please note the revised rejection above.

Applicant argues that Puech fails to teach or suggest that the triple covering in the cowling is unextendable in a direction substantially parallel to the engine casing. It should be noted that the triple covering is bolted or otherwise installed in the cowling as noted on lines 65 – 70. When bolted or installed, the member would not be capable of extending in the second direction. It should be noted that “un-extendable” is considered a “capable of” type limitation and it has been held that an element is “capable of” performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

Applicant has not provided any arguments for the rejections based on Puech in view of McCullough and Puech in view of Nevin besides that Puech does not teach the claimed invention. Please see the comments above in regards to the teachings of Puech.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Boyd whose telephone number is 571-272-1473. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JB

Jennifer Boyd

April 13, 2006


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